

Reducing Disruptive Behavior  
through Increased Student Engagement Strategies

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## Table of Contents

Abstract	i
List of Tables	ii
I. Introduction	1
Overview	1
Statement of Problem	3
Hypothesis	3
Operational Definitions	4
II. Review of the Literature	6
Overview	6
Background regarding student engagement	6
Causes of student disengagement	7
Lack of student engagement equals rise of disruptive behaviors	8
The Self-Contained Setting	9
Bridging the Gap	10
Summary	10

III. Methods	12
Design	12
Participants	12
Instruments	13
Procedure	13
IV. Results	15
Results	15
Conclusion	18
V. Discussion	14
Discussion	19
Implication of Results	19
Threats to Validity	20
Connections to Previous Literature	20
Implications for Future Research	21
Conclusion	22
References	23

## Abstract

The purpose of this study was to determine whether the implementation of increased engagement strategies that included cooperative learning, technology integration, and meaningful decision making of students in a self-contained setting would increase students' motivation and reduce disruptive behaviors. Participating students were placed into two groups. The control group consisted of five students who did not receive any of the interventions, and the treatment group consisted of five students who did receive the increased engagement strategies. Achievement was measured by pre- and post-surveys developed by the investigator. Both groups were given the pre/post survey that contained six items designed to gauge how the students felt about their academic experience, level of engagement, and their teachers. The investigator met with the control group twice a week on Mondays and Wednesdays for 40 minutes. During this time, the students received direct instruction from the investigator, and before returning to their classroom, they worked on skills with which they were struggling in their classroom setting. The students from the treatment group met with the investigator twice a week on Tuesdays and Thursdays for 40 minutes. During this time, the students were immersed in a student-centered learning environment in which they received their instruction through the use of a smartboard, participated in think-pair-share activities, and were allowed to make meaningful decisions related to their classwork. The investigator found a significant difference in the results obtained from the control and treatment groups. The treatment group demonstrated a greater reduction in the frequency of disruptive behavior.

## List of Tables

1. Two-Sample t-tests for Treatment vs. Control Engagement Survey Pretests
2. Two-Sample t-tests for Treatment vs. Control Engagement Survey Posttests
3. Paired t-tests for Treatment Group (5 Students) Engagement Survey
4. Paired t-tests for Control Group (5 Students) Engagement Survey
5. Frequency of Disruptive Behavior Before, During, and After the Treatment

# CHAPTER I

## INTRODUCTION

### Overview

Disruptive behavior in a school classroom can result in many negative effects for both teachers and students. Problem behaviors create clear risks for students' academic achievement at school (Frick et al., 1991; Wagner et al., 2005). Among the many reasons why students might demonstrate problem behaviors are attention seeking, poverty, emotional/mental disorders, trauma, or learning disabilities. Disruptive behavior may be linked to lack of engagement. Many students are not interested in the content that they are required to learn because they cannot construct meaning or apply the content to their daily lives. To reduce or possibly prevent disruptive behaviors, educators must be willing to tailor lessons to the unique needs of the students they serve (Washor & Mojkowski 2014).

According to Groccia and Hunter (2012), increased engagement leads to improvement in students' higher-level critical thinking skills, attention, and focus, and creates a meaningful learning experience. Learning requires "educational practices that engage students across disciplinary boundaries in learning experiences that tackle real problems, allow for application of course content to those problems, and lead to sustained intellectual growth and a heightened sense of personal responsibility" (Groccia & Hunter, 2012, p. 3).

The researcher, who is a third- and fifth-grade resource teacher at an elementary school with a high population of English for Speakers of Other Languages (ESOL) and African American students, observed a diminishing level of motivation and an increase in disruptive behaviors among her students. Many of the students in her classroom appeared to be less involved in completing classwork assignments, participated less frequently during class sessions,

and performed poorly on tests. Some students began to exhibit disruptive behavior such as talking to peers during instruction, leaving seats without permission, and purposely distracting peers who were trying to receive instruction. The investigator believed that this downward spiral in students' behavior was caused by a lack of understanding of the content being taught and a lack of motivation, which possibly could have been related to the traditional lecture approach that was used in their classrooms at that time.

When reviewing the literature regarding causes of student disengagement, the investigator examined the work of Washor and Mojkowski (2014). This research discusses how American schools are failing to meet the expectations of students, many of whom are from low-income and rural communities. The researchers identify several factors that may contribute to student disengagement. For example, many students feel that what they want and who they are do not matter to teachers or schools. They feel their voices are not being heard and they are not being given relevant choices. Washor and Mojkowski state that many students are concerned that they must fit into a restrictive school structure, culture, and curriculum but their schools do little to respond to their needs and concerns.

Upon reviewing relevant studies, the researcher worked to identify ways students might realize that their voices were being heard. She determined that the best way to address this need was to create a student-centered learning environment connecting students to the content they were learning in a highly engaging way and also to deliver it in a manner that would enable them to apply their new learning to the "real world." Assor, Kaplan, and Roth (2002) conducted research indicating that choice positively influences student motivation and learning. These researchers state that when students are encouraged to make meaningful choices within the classroom, they tend to be more engaged and, as a result, achieve more positive outcomes.

Incorporating peer learning has been a viable component of the teaching process as it reinforces the students' own learning while helping them to instruct/support peers. For example, Smith (1996) encourages implementation of cooperative learning, which he defines as "the instructional use of small groups so that students work together to maximize their own and each other's learning" (p. 67). Additionally, many of today's students are highly interested and engaged in using technology. Numerous opportunities are available for teachers to integrate some form of technology in the classroom to make teaching and learning more effective. When technology is integrated into lessons in ways that are aligned with good in-person teaching pedagogy, learning can be enhanced (Mohammed, 2020).

Based on her review of the literature and careful observation of the needs and interests of her students, the researcher determined that to improve classroom climate and enhance student outcomes, she would investigate the efficacy of creating and implementing a student-centered environment by integrating technology, fostering cooperative learning, and providing chances for meaningful decision-making.

### **Statement of the Problem**

The purpose of this study was to determine whether increasing student engagement in the inclusive and/or self-contained setting would increase students' motivation and prevent or reduce disruptive behaviors.

### **Hypothesis**

The null hypothesis is that introducing cooperative learning, meaningful decision making and integrating technology will have no impact on student engagement or behavior.

### **Operational Definitions**

## **Independent Variables**

### ***Cooperative Learning***

For the purpose of this study, cooperative learning was defined as an instructional strategy in which small groups of students work together to maximize their individual and collective learning experience.

### ***Meaningful Choices/Decision Making***

For the purpose of this study, meaningful choices/decision making was defined as students' associating feelings of autonomy, competence, and relatedness with choice which, in turn, results in beneficial outcomes, such as student engagement.

### ***Technology Integration***

For the purpose of this study, technology integration was defined as the use of projectors and computers to present content to students to provide them with a visual to help them grasp the skill that is being taught. On occasion in this study, students were given laptops to complete assigned classwork.

## **Dependent Variables**

### ***Disruptive Behavior***

For the purpose of this study, disruptive behavior was defined as refusal to work, talking during instruction, purposely distracting peers who are trying to receive instruction, and leaving seat without permission.

### ***Student Disengagement***

For the purpose of this study, student disengagement was defined as becoming less involved in completing classwork assignments, low classroom participation, staring off into space/looking uninterested, and/or poor academic performance.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Overview**

This literature review explores the relationship between increasing student engagement in the inclusive and/or self-contained setting and enhanced student motivation and prevention or reduction of disruptive behaviors. Included in the review is background regarding student engagement, a discussion of causes of student disengagement, the relationship between lack of engagement and increasing disruptive behavior, student engagement in the self-contained setting, and bridging the gap between disruptive behavior and student engagement.

#### **Background Regarding Student Engagement**

The term “student engagement” has been used by educators and researchers for more than 70 years, and the meaning has continually changed over time. Coates (2007) defines engagement as a “broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience” including “active learning, participation in challenging academic activities, formative communication with academic staff, involvement in enriching educational experiences, and feeling legitimated and supported by university learning communities” (p. 122).

Axelson and Arend (2010) define student engagement as “how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other” (p. 38). According to the Glossary of Education Reform (2016), a comprehensive online resource that describes school-improvement terms, concepts, and educational strategies, student engagement “refers to the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends

to the level of motivation they have to learn and progress in their education” (p. 38). No matter how student engagement has been defined, it becomes a focal point in an effort to enhance teaching and learning.

Conscientious teachers strive to teach effectively and often seek new strategies and alternatives to improve their current instructional approaches. According to Bonwell and Eison (1991), and Hake (1998), the major focus of individual instructors and the education establishment as a whole is to engage learners on the levels of doing, feeling, and thinking that contribute to educational experiences that lead to higher level learning, retention, and satisfaction. These researchers maintain that active and engaged learning activities that move learners from passive recipients of knowledge to participants in elaborating, discussing, sharing, questioning, and problem-solving increase motivation and learning. They emphasize that educators must continually endeavor to find and implement new data-driven strategies to reach students and deliver instruction in the most meaningful way possible.

Schlechty (2001) augmented the understanding of student engagement by proposing that it is not an “all or none” phenomenon; one is not simply engaged or not engaged, but rather one can function at different levels of engagement. Students who participate in activities that have a clear meaning and an immediate value demonstrate authentic engagement.

### **Causes of Student Disengagement**

According to Washor and Mojkowski, (2014), student disengagement takes place when students cannot construct meaning from what they are learning and how it can be applied in the real world; hence, it is imperative for teachers to deliver instruction in a fashion that will meet the individualized needs of each student. Many young people feel that who they are and what they want to become does not matter to teachers and schools. Concerns arise when students are

required to fit into a restrictive school structure, culture, and curriculum, while schools do little to adjust to the needs and interests of their students (Washor & Mojkowski, 2014). To prevent student disengagement, it is important for teachers to build rapport with the students and create a classroom that is conducive to learning where all students feel accepted and their beliefs/opinions are respected.

According to Washor and Mojkowski, (2014), many students drop out of school because of academic failure, behavioral problems, and life issues; many more stay in school but gradually disengage from what schools have to offer. Just as schools have high expectations for students, young people have high expectations for schools. Student expectations can guide the creation of a new relationship that young people want with school emphasizing student engagement. According to Washor and Mojkowski, the core values that students deem important to create a meaningful academic experience focus on relationships, relevance, authenticity, application, choice, challenge, play, practice, time, and timing.

### **Lack of Engagement Equals Rise of Disruptive Behaviors**

Lane, Giyney, and Pierson (2004) state that many students in public school settings display social and behavioral deficits that limit their ability to be educationally and socially successful. Students with high-incidence disabilities are at particularly high risk for displaying social and behavioral deficits that threaten success. The authors explain that students in the self-contained setting generally have some sort of disability that interferes with their motivation/engagement or lack thereof which, in turn, increases the number of disruptive behaviors. For many children, behavioral difficulties are persistent and pervasive. These difficulties become a barrier which prevents the young person from successfully engaging with learning and will hinder or prevent the teacher teaching and other children from learning (Long,

2003). It is imperative for the educator to establish rapport with the student to determine how to modify instruction so that the content is accessible to the student. Long (2003) advises that to keep students engaged, educators continually must present instruction in a variety of ways, incorporate technology, offer incentives, make connections to the real world, play games, offer opportunities to apply what they have learned, and challenge students. These practices also may reduce disruptive behavior.

### **The Self-Contained Setting**

Students with emotional and behavioral disorders (EBD) are the most likely of all children with disabilities to be placed in the self-contained setting (Furney et al., 2003). The purpose of restrictive placements for students with behavioral issues is to provide intensive academic and social support that might not be available in general education classrooms (Lane, Wehby, Little, & Cooley, 2005a). According to Lane et al. (2005), students in the self-contained setting receive extra support and a modified curriculum to make the work accessible to them and promote student progress.

Although self-contained classrooms are meant to provide increased opportunities for students' academic and social development, research suggests that these deficits persist for most students even after placement into more restrictive settings (Denny, Gunter, Shores, & Campbell, 1995; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Lane et al., 2005). Even with so many supports in place for the student, frequently there is a lack of academic progress that has become a cause for concern. This lack of progress may be due to insufficient engagement/motivation that students experience. Since many of these students have learning disabilities, they already may have a negative outlook about school, Therefore, it is important to not only to ensure that

accommodations and modifications are implemented, but also that engagement strategies such as providing ample visuals and incorporating technology in all lessons are included.

### **Bridging the Gap**

Delivering instruction in a public-school classroom is a demanding job. Teachers increasingly are asked to accommodate students whose off-task and disruptive behaviors inhibit their own learning and the learning of other students in the class (McLeskey, Henry, & Hodges, 1991; Sawka, McCurdy, & Mannella, 2002; Sprague & Walker, 2000) In order to prevent exhaustion on the teachers' part and frustration on the students' part, a common ground must be established. Students must be actively involved in their learning process and their expectations should be heard and met to the greatest extent possible. These researchers advise that teachers continually should be encouraged to reflect about and implement new and creative ways to engage all students and help them to stay "on task." Further, the researches advise that this can be done through the use of movement, visuals, peer learning, including students in the learning process, adding fidgets, and incorporating technology such as iPads and computers. Implementing engagement strategies such as those described above hopefully will reduce or eliminate disruptive behaviors and more students will be engaged and on task.

### **Summary**

Student engagement has been defined in several ways. However, no matter how student engagement has been defined, it becomes a focal point in the effort to enhance teaching and learning. The causes of student disengagement include factors such as educator's failure to adjust instruction to the needs and interests of their students, academic failure, behavioral problems, and life issues. Causes of disruptive behavior can relate to social and behavioral deficits that limit

students' ability to be educationally and socially successful. Teachers can bridge the gap to increase student motivation and reduce disruptive behaviors through incorporating a variety of activities that are meaningful and engaging for students.

## **CHAPTER III**

### **METHODS**

#### **Design**

The investigator conducted a two-group pre/posttest study to determine whether implementing engagement strategies would affect student motivation and behavior. Cooperative learning, technology integration, and meaningful choices/decision making were the independent variables and student engagement and disruptive behaviors were the dependent variables in this study. During the duration of this study, five of the ten participants were immersed in a student-centered learning environment designed to increase student engagement and reduce or prevent disruptive behavior.

#### **Participants**

For the purpose of this study, the investigator selected ten third-grade students who previously exhibited low engagement and behavioral concerns. The investigator, who is a resource teacher at the elementary school level, selected two groups of students (five from class A and five from class B) for participation in the study. Students from class A served as the control group that did not receive any increased engagement strategies during the duration of this study. Students from class B served as the treatment group and received the experimental procedure that incorporated technology integration, cooperative learning, and making meaningful choices/decisions. The study was implemented in a self-contained setting in the investigator's office where small group sessions were conducted. In total, ten students were involved in the study. Six students were Hispanic, and the remaining four students were African American. The students were enrolled in a Title I school with a high poverty rate.

## **Instrument**

The investigator used a teacher-created student engagement survey that contained five items about their academic experience and to assist the teacher with creating a meaningful experience for the students. Initially the survey was administered to establish a baseline for the students and administered again following the treatment to learn whether students' feelings toward their academic experience remained the same, improved, or declined. The investigator also used a behavior tracking system that targeted undesirable behavior such as refusal of work, talking during instruction, purposely distracting peers who were trying to receive instruction, and leaving their seat without permission. Students from class B (treatment group) had their behavior tracked two weeks prior to the implementation of the study to establish a baseline. Thereafter, the behavior was tracked during each small group session to determine whether the increase in engagement strategies caused any change in disruptive behavior.

## **Procedure**

The study began on February 3, 2020 and concluded on March 13, 2020. During this five-week study, the investigator conducted small group sessions with students from class A (control group) and students from class B (treatment group) on a weekly basis to track data. Students from the control group did not receive any aspect of the experimental treatment throughout the study but they did complete the pre and posttest. Their behavior was tracked to compare the resulting data against the data from their counterparts who received the experimental treatment. Students from class B were fully immersed in technology integration, cooperative learning, and making meaningful decisions. Students from Class A (control group) met with the investigator every Monday and Wednesday for 40 minutes. During this time,

students in Class A received direct instruction from the investigator and before returning to their classroom, worked on skills with which they were struggling in their classroom setting.

Their counterparts from class B met with the investigator on Tuesdays and Thursdays and received differentiated instruction based on their academic needs. During the 40-minute session students from group B received their instruction through use of the smartboard and were provided with ample visuals to ensure they understood-the content they were expected to learn. During these brief lessons, students were involved in think-pair-share activities with their peers to promote positive interaction. Following these brief lessons, students worked on completing their class assignments in groups of two or three which enabled peer tutoring, sharing of opinions, and reinforcing one's own learning while also establishing healthy relationships among peers and flourishing academically. Instead of utilizing a teacher-directed approach, the investigator encouraged the students to take control of their own learning. Research reviewed by the investigator (Parker, Novak, & Bartell, 2017). suggests that when students understand the value or relevance of their assignments, they feel more competent and capable of mastering challenges as they arise.

After the five-week session, all collected data were analyzed to determine whether increasing engagement strategies helped increase students' motivation and eliminated or reduced disruptive behavior.

## CHAPTER IV

### RESULTS

The purpose of this study was to determine whether the implementation of cooperative learning, technology integration, and making meaningful choices increased student engagement and reduced or prevented disruptive behaviors in the self-contained setting. Achievement was measured by pre- and post-unit surveys developed by the investigator. The investigator found that there was a significant difference in the results obtained from the control and treatment groups.

The pre/post survey contained six items designed to gauge how students felt about their academic experience, level of engagement, and their teachers. The following items were included in the survey.

Item 1: I feel my schoolwork is important.

Item 2: When I don't know something, I ask for assistance.

Item 3: The activities I do in class are fun and engaging.

Item 4. When I'm in class I try my best.

Item 5. At the end of the school day, I feel excited about tomorrow's school day.

Item 6. Do you feel like your teacher cares about you and if you're learning?

Students had a survey scale that ranged from 1 which equals never, 2 which equals sometimes, and 3 which equals often. The tables below show how the students from the control and treatment groups responded to the pre- and post-survey items.

Table 1

*Two-Sample t-tests for Treatment vs. Control Engagement Survey Pretests*

Item	Treatment Mean	Control Mean	t-test	p-level	Hypothesis Decision
1	1.8	2.0	-.41	.70	Null
2	1.8	1.8	0.00	1.00	Null
3	1.8	1.4	.89	.41	Null
4	2.4	1.8	1.34	.23	Null
5	1.4	1.6	-.58	.58	Null
6	2.2	1.6	1.34	.23	Null

Survey scale ranges from 1=never, 2=sometimes, 3=often.

There were five treatment and five control students.

Null hypothesis tests for the pretests indicate insufficient evidence to reject the null hypothesis.

For the pretest, these results were required for a fair, impartial study.

Table 2

*Two-Sample t-tests for Treatment vs. Control Engagement Survey Posttests*

Item	Treatment Mean	Control Mean	t-test	p-level	Hypothesis Decision
1	2.4	1.8	1.90	.10	Alternative
2	2.6	1.8	2.53	.04	Alternative
3	2.4	1.8	1.90	.10	Alternative
4	2.6	1.8	2.53	.04	Alternative
5	2.0	1.6	1.00	.35	Null
6	2.6	2.0	1.50	.18	Null

Survey scale ranges from 1=never, 2=sometimes, 3=often.

Items 1-4 had sufficient evidence to reject the null hypothesis of no difference in the treatment and control population means using the more liberal  $\alpha=.10$  level. The sample sizes were small, and the survey had a possible range of 3 scores. Increasing the risk of a false positive from 5% to 10% was warranted. For items 5 and 6, the null hypothesis could not be rejected at a reasonable alpha level.

Table 3

*Paired t-tests for Treatment Group (5 Students) Engagement Survey*

Item	Pre Mean	Post Mean	t-test	p-level	Hypothesis Decision
1	1.8	2.4	2.45	.07	Alternative
2	1.8	2.6	2.14	.09	Alternative
3	1.8	2.4	1.50	.21	Null
4	2.4	2.6	1.00	.37	Null
5	1.4	2.0	2.45	.07	Alternative
6	2.2	2.6	1.00	.37	Null

Survey scale ranges from 1=never, 2=sometimes, 3=often.

Table 4

*Paired t-tests for Control Group (5 Students) Engagement Survey*

Item	Pre Mean	Post Mean	t-test	p-level	Hypothesis Decision
1	2.0	1.8	-1.00	.37	Null
2	1.8	1.8	0.00	1.00	Null
3	1.4	1.8	1.63	.18	Null
4	1.8	1.8	0.00	1.00	Null
5	1.6	1.6	0.00	1.00	Null
6	1.6	2.0	1.63	.18	Null

Survey scale ranges from 1=never, 2=sometimes, 3=often.

The treatment group experienced gains in mean engagement for all six survey items.

Three of the sample gains (items 1, 2, 5) were sufficient to reject the null hypothesis of no population mean gain at the  $\alpha=.10$  level. The control group, on the other hand, had mean sample gains for items 3 and 6. Item 1 had a sample mean loss; while items 2, 4, and 5 had the same sample mean for pre- and post-surveys.

Table 5

*Frequency of Disruptive Behavior Before, During, and After the Treatment*

Behavior	Control (N=5)			Treatment (N=5)		
	Pre	During	After	Pre	During	After
Refusal to work	2	2	1	4	1	1
Talking during instruction	1	2	2	2	1	0
Purposely distracting peers	1	3	1	3	0	0
Leave seat w/o permission	2	1	1	1	0	0
Totals	6	8	5	10	2	1

The treatment group tended to have larger reductions in the frequency of disruptive behavior. The treatment students had more disruptive behaviors before the treatment was applied. Afterward, the treatment students had no disruptive behaviors in three categories and one count in one category.

### **Conclusion**

In summation, the initial null hypothesis of the study that introducing cooperative learning, meaningful decision making, and integrating technology will have no impact on student engagement or behavior was rejected as incorporating the engagement strategies did reduce the frequency of disruptive behaviors and prompted an increase in student engagement. In addition, according to the treatment group's responses, students' attitudes toward their academic experience shifted from negative to positive.

## **CHAPTER V**

### **DISCUSSION**

This study hypothesized that there would be no change in disruptive behavior and student motivation as a result of the implementation of increased engagement strategies that included technology integration, cooperative learning, and meaningful decision making. According to the results reported in Chapter IV, the treatment group experienced a significant reduction of disruptive behaviors, while the control group's disruptive behaviors did not decrease.

#### **Implication of Results**

The results of this study rejected the null hypothesis. The control group and treatment group were given a set of pre/post survey items. According to the pre-survey items, there was not sufficient evidence to reject the null hypothesis. The investigator then implemented the engagement strategies which included cooperative learning, technology integration, and meaningful decision making to the treatment group for five consecutive weeks. During this time the control group did not receive any increased engagement strategies and received instruction through traditional procedures. During the implementation of the increased engagement strategies, the treatment group experienced large reductions in disruptive behavior with refusal to work (pre-treatment 4, during treatment 1, after treatment 1) and purposely distracting peers (pre-treatment 3, during treatment 0, after treatment 0) showing the most improvement. Initially the treatment group displayed more disruptive behaviors than the control group, but toward the end of the study, the treatment group's behavior had greatly decreased in all areas, and they displayed no disruptive behaviors in the following categories: talking during instruction, purposely distracting peers, and leaving seat without permission. At the conclusion of the study, the investigator gave the control and treatment groups the post-survey to determine whether their

feelings toward their academic experience, level of engagement, and feelings toward their teacher changed or remained the same. According to the results, the treatment group's attitude shifted from negative to positive. The treatment group experienced gains in all six of the survey items with the greatest gains coming from items 1, 2, and 5. The control group, by contrast, increased disruptive behaviors in five of the six items.

### **Threats to Validity**

There were many limitations that could have impacted the implementation and results of this study. These limitations included the number of students, the length of the study, students' schedules, and absenteeism. In total there were ten students, and the study was implemented for a very short period, just five weeks. During this time, the treatment group visited the investigator's office twice a week, on Tuesdays and Thursdays, for 40-minute sessions. This short span of time to implement the treatment potentially could yield invalid results. Since students were seen only on Tuesdays and Thursdays, attendance became an issue as some of the students missed days or could not leave class due to testing, which prevented them from being part of every session.

Another limitation was the pre- and post-survey. The surveys were identical, which meant that the students could have answered the items on the pre- and post-survey exactly the same. Another potential threat to validity was that students could have responded to the post survey items in a manner to please the investigator. A larger randomized group of participants would have increased the validity of the study.

### **Connections to Previous Literature**

According to Wise (2003), teachers must create a formula that leads to student success. This formula will help students to make meaningful choices and increase student engagement.

Throughout the study, the investigator created a student-centered learning environment which enabled student choice and autonomy which are key components to helping students make informed and/or meaningful decisions. The investigator ensured that each student felt competent to complete all coursework, as it was her experience that when students believe they know what to do, they are more likely to master challenges they may encounter. Also, throughout the study, the investigator made certain that all assignments were relevant so that students could relate and/or apply them to the real world.

Axelsson and Arend (2010) define student engagement as “how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other” (p. 38). By creating a student-centered environment with increased engagement strategies, the investigator noticed an increase in participation, cooperative learning, and work performance. Students were eager to learn as their learning was self-paced and they felt that the work they were doing was important. In turn, this positive attitude reduced the number of negative behaviors and classroom disruptions. The increased engagement strategies fostered productivity, communication skills, and a climate of acceptance.

### **Implications for Future Research**

As stated above, a larger randomized group of participants would have increased the validity of this study, and the researcher recommends that future studies adhere to this recommendation. Future studies also should be conducted for longer than five weeks to obtain the most accurate data and sufficient data to retain or reject a null hypothesis. Longer treatment sessions also would be ideal as 80 minutes per week is not enough time to truly determine whether or not the strategies are actually working, or whether the change in participants’ behavior is temporary due to the change in environment and instruction. Finally, the investigator recommends using

different pre/post surveys to reduce the chance of students choosing the same responses from the pre-survey and/or selecting the answer they think the instructor would want them to choose.

### **Conclusion**

The results of this study indicated that the implementation of increased engagement strategies provided a significant change in disruptive behavior and student motivation. The results did not support the null hypothesis that introducing cooperative learning, meaningful decision making, and integrating technology will have no impact on student engagement or behavior. The investigator found that creating a student-centered environment with clear expectations, routines, and consistency decreased disruptive behavior and increased student motivation. Prior to the study, the treatment group exhibited defiant behaviors, but as the intervention began, the investigator observed a reduction in disruptive behaviors and an increase in student engagement as students were eager to work with peers, use technology to complete work, and make meaningful choices.

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